

KRAUZ, JÓZSEF

H U N G .

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Budapest: Erdélyi ipari és Bányászeti Könyvkiadó
Kiadó Vállalat, 1932.

Handbook of the Materials and Processes
Used in Fermentation Industry

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"Survey of the activity of the Research Institute of the Fermentation Industry." p. 183.
(Mátyar Kemikusok Lapja, Vol. 8, no. 6, June 1953, Budapest)

SO: Monthly List of East European Accessions, Vol 3 No 2 Library of Congress Feb 54 Unclassified

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"Criticism of Modern Distilling Apparatus. II. Distilling Apparatus of
a New Type", P. 251, (ELEMÉZESI IPAR), Vol. 8, No. 8, Aug. 1954, Budapest,
Hungary)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

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KRAUSZ, J.; KANICS, M. - Elelmzesi Ipar - Vol. 9, no. 5, May 1955.

New method for obtaining isoamyl alcohol by redistillation. p. 146.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

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KRAUSZ, J., AND OTHERS. Preparation of mashes with higher alcoholic content and its economic significance. p. 11.

Vol. 10, No. 1, Jan. 1956

ELLMELZSI IPAR.

TECHNOLOGY

Budapest, Hungary

Re: East European Accessions, Vol. 5, No. 5, May 1956

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HUNGARY/Chemical Technology - Chemical Products and Their
Application. Fermenting Industry.

H-27

Abs Jour : Ref Zhur - Khimiya, No 17, 1958, 58975
Author : Krausz Jozsef, Kanics Miklos
Inst :
Title : Conditions of Solubility in a System of Alcohol-Water-
Fusel Oil and a New Method of Drawing-Off Fusel Oil.
Orig Pub : Elelm. ipar, 1957, 11, No 5-6, 138-142

Abstract : The scheme of rectification of alcohol is simplified.
Separation of fusel oil (FO) is accomplished in a spe-
cial decanter connected in a line that joins above the
first and below the second column. For determining
the optimum concentration of the FO being recycled,
curves were obtained for its solubility in a triple
system of alcohol-water and C₅H₁₁OH (or C₄H₉OH), at
20° and boiling temperature (88-94° depending on the
composition). During the development of

Card 1/2

HUNGARY/Chemical Technology - Chemical Products and Their
Application. Fermenting Industry.

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* Abs Jour : Ref Zhur - Khimiya, No 17, 1958, 58975

96.5-96.7% alcohol, the steam saving during the work
is ~ 3.3% under the new system; however, with this
scheme, it is quite possible to put 95% alcohol into
production (which in a majority of cases is sufficient
for the consumer). In this case, the steam saving
reaches 12.4%. During the process according to the
described scheme, full freedom from F0 impurity is
attained only with the maximum concentration (96.5-96.7%)
of alcohol.

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- 74 -

KRAUSZ, Jozsef, dr.; KAHICS, Miklos

Solubility conditions of alcohol-fusel oil system and a new
method for recovering fusel oil. Elelm ipar 11 no.5/6:138-142
Ag '57.

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AUBERT, H., Prof.; ROTH, L., dr.; KRAUSZ, N., dr.; WEINRAUCH, F., med.

Etiopathogenesis and prognosis of myelopathy. Med. int., Bucur.
8 no.2:192-202 Apr-May 56.

1. Clinica i medicala, Timisoara.

(BONE MARROW, diseases

 allergic, toxic & syphilitic, etiol. & progn.)

(SYPHILIS, complications

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(ALLERGY

 allergic myelopathy, etiol. & progn.)

TOPCIU, Vl.; KRAUSZ, N.; BOGDAN, Valeria

Kidney diseases caused by Coxsackie virus. Stud. cercet. inframicrobiol. Bucur. 11 no.1:133-140 '60.

1. Comunicare prezentata la Institutul de inframicrobiologie al Academiei R.P.R. in sedinta din 16 septembrie 1959.

(KIDNEY DISEASES, etiology)

(COXSACKIE VIRUSES, infection)

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"Considerations in choosing the most favorable milling method" p.271, (GEP, Vol. 5, no. 6, July 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, L.C., Vol. 2, No. 11, Nov. 1953, Uncl.

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41. Milling at high rates of feed - S. Krause, P.
Festschr. (Geb.) - Vol. 6, 1956, No. 10, pp. 443-450,
17 figs. 1 tab.

MN
① How to obtain the maximum economy in milling by increasing the rate of feed was made the subject of investigations. When designing the cutter, edge life, surface finish and the prevention of chatter were taken into consideration. Optimum geometry is as follows: secondary rake angle -5°, rake angle 15°, angle of cutting edge -10°, plan angle 45°, side cutting angle 5°, clearance angle 10°. Tests conducted on 76 kg/mm² tensile-strength steel on a type UF 22 milling machine, using grade A carbide tips have proved that surface finish remains about the same up to a feed rate of 0.8-0.9 mm per cutter tooth. A precondition, however, is that the finishing tooth be provided with a 4-7 mm broad finishing edge. The effect of increasing the rate of feed on edge life is identical with that of rates lower than 0.2 mm. A nomograph has been plotted; the cutting speed values derived from it must be modified in practice by corrective factors depending on the material. In comparing the economicalness of operation on the basis of identical machine capacity and edge life and a material of the above stated tensile strength, a 20% increase in output was registered in favour of high feed rates.

of gear

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SOURCE: East European Accessions List. (EAL), LC, Vol. 5, No. 2, Feb. 1956.

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Vol. 5, no. 1, Jan. 1959.

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"Applied metallurgy" by E. Kauczor. 4th ed. Reviewed by B. Kraut.
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"Manual of anticorrosion" by A.J. Maurin. Reviewed by B. Kraut.
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"Procedures in metallurgical work" by E. Kauczor. Reviewed by B. Kraut.
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"Foundry; a handbook for iron metallurgists." Reviewed by E. Kraut.
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Reviewed by B. Kraut. Stroj vest 8 no.3:80 Je '62.

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Chlornaphesic series. I. A new synthesis of chlornaphenol. János Kollentsch, Á. Hálász, V. Lábor, and M. Kánya (Keszthely Inst. Pharm. Ind., Budapest). *Acta Chem. Acad. Sci. Hung.*, 3, 13-32 (1954) (in German) (English summary).—A new method is reported for the Ph-catalyzed addn. of alkyl hypobromites to a double bond. To a suspension of 12 g. PbO in 100 ml. MeOH is added, alternately and in small portions, 5.2 ml. Br and a soln. of 14.8 g. PhCH:CHCO₂H in 250 ml. MeOH, the mixt. cooled, stirred 1.5 hrs., and filtered. Removal of Pb salts with H₂S and concn. in vacuum gives 24.9 g. *erythro*-2-bromo-3-phenyl-3-methoxypropionic acid (I), m. 179-82°. A suspension of 24 g. PbO in 200 ml. MeOH treated similarly with 10.4 ml. Br and with a soln. of 32.4 g. PhCH:CHCO₂Mg gives, after removal of Pb salts and vacuum concn., 41 g. *Me erythro*-2-bromo-3-phenyl-3-methoxypropionate (II), m. 74-8°. Heating 82 g. *three*-MeOC₂HPhCH₂BrCO₂H in a sealed tube at 80° for 12 hrs. with 800 ml. concd. NH₄OH gives 42.18 g. *three*-2-amino-3-phenyl-3-methoxypropionic acid (III), m. 228-30° (from alc.). Heating 20 g. I with 170 ml. concd. NH₄OH for 18 hrs. at 80° in a sealed tube gives 17.45 g. *erythro*-2-amino-3-phenyl-3-methoxypropionic acid (IV), m. 218-50° (from alc.). Heating 78.5 g. IV with 78.5 g. *o*-C₆H₄(CO₂H)₂ 15 min. at 160° gives 78 g. *erythro*-2-phthalimido-3-phenyl-3-methoxypropionic acid (V), m. 200-3° (from alc.). Heating 78 g. V with 70 g. PCl₅ in 800 ml. abs. C₆H₆ gives 73.9 g. *erythro*-2-phthalimido-3-phenyl-3-methoxypropionyl chloride (VI), m. 195-0° (decompn.). Heating 5 g. VI with 5 ml. abs. pyridine and MeSH (from 20 g. MeSCN; NH₄)NH₂ and 30 ml. 5*N* NaOH in a sealed tube gives 2.58 g. *erythro*-2-phthalimido-3-phenyl-3-methoxypropionic acid methylthio ester (VII), m. 147-50°:

(from alc.). Heating a soln. of 0.45 g. VII in 20 ml. abs. alc. with 4 g. Raney Ni under N gives 0.08 g. product, C₁₁H₁₂O₃N (VIII), m. 165-70° (from alc.). To a suspension of 19.45 g. Pd-BaSO₄ in 400 ml. xylene is added 23.9 g. VI and 0.03 g. NH₂C₆H₅NH₂ and the mixt. treated with H at 150°, giving *erythro*-2-phthalimido-3-phenyl-3-methoxypropionaldehyde (IX), m. 140-42°; *p*-nitrophenylhydrazone (X), m. 202-4°. A soln. of 25 g. IX in 250 ml. iso-PrOH heated with 13.1 g. Al(iso-PrO)₃ gives 20.18 g. *erythro*-1-phenyl-1-methoxy-2-phthalimido-3-hydroxypropane (XI), white crystals, m. 101-8° (from Et₂O). A soln. of 5 g. XI in 20 ml. abs. alc. treated with 30 cc. *N* aq. soln. N₂H₄·H₂O gives 2.9 g. *erythro*-1-phenyl-1-methoxy-2-amino-3-hydroxypropane (XII), green oil; *p*-nitrobenzoate (vide infra), m. 103-4°. Refluxing 3.35 g. IV with 80 ml. abs. alc. gives 4 g. *E*-*erythro*-2-amino-3-phenyl-3-methoxypropionate-HCl (XIII), m. 168° (decompn.). A soln. of 2.63 g. XIII in 7 ml. MeOH treated with a soln. of 0.25 g. Na in 5 ml. MeOH gives 2.31 g. *E*-*erythro*-2-amino-3-phenyl-3-methoxypropionate (XIV), as an oil. A soln. of 0.2 g. XIV in 100 ml. dry Et₂O treated with 1.57 g. LiAlH₄ in 07 ml. dry Et₂O gives 5.85 g. *erythro*-1-phenyl-1-methoxy-2-amino-3-hydroxypropane (XV) as an oil. A soln. of 0.2 g. XV in 10 ml. H₂O treated with 0.02 g. *p*-O₂NC₆H₄COCl in 10 ml. dry Pt₆O and 4 ml. *N* NaOH gives 0.13 g. product which recrystd. from 60% alc. gives 0.04 g. *N*-*p*-nitrobenzyl deriv. of XV, m. 163-4°. Heating 0.54 g. XV with 5 ml. 50% HBr gives 1.13 g. of oil *threo*-1-phenyl-2-amino-1,3-dihydroxypropane (XVI). A soln. of 0.2 g. of XVI in 6 ml. H₂O treated with a soln. of 0.11 g. *p*-O₂NC₆H₄COCl in 10 ml. Et₂O and with 4 ml. *N* NaOH gives 0.05 g. *N*-*p*-nitrobenzoyl deriv. of XVI, m. and m.p. 191° (from alc., alc.). A soln. of 11.3 g. XI in 20 ml. abs. pyridine treated with II

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ml. Ac₂O gives 12.0 g. (100%) *XI acetate* (XVII), m. 107-10°. Treatment of 32.5 ml. concd. HNO₃ (decolorized with NH₄SO₃H) with 12.01 g. XVII, added in small portions, gives 5.19 g. *erythro-1-p-nitrophenyl-1-methoxy-2-phthalimido-3-acetoxyp propane* (XVIII), m. 143-4° (from abs. alc.). Heating 1.4 g. XVIII 12 hrs. with 28 ml. 6N HCl gives 0.01 g. *erythro-1-p-nitrophenyl-1-methoxy-2-amino-3-hydroxypropane* (XIX), rose-red crystals, m. 110° (from Et₂O). Treatment of 0.2 g. XIX with 2 ml. 50% HBr and 6 ml. H₂O followed by extn. with EtOAc and treatment of the ext. with 1 ml. Ac₂O and 1 ml. pyridine gives 0.11 g. *erythro-1-p-nitrophenyl-2-acetamido-1,3-dihydroxypropane acetate* (XX), m. and mixed m.p. 151-8° (from Et₂O). Refluxing 120 ml. of satd. alc. HCl with 17.37 g. III and continued addition of HCl gas gives 40.25 g. *Et threo-2-amino-3-phenyl-3-methoxypropanoate-HCl* (XXI), m. 183-4°. A soln. of 40.25 g. XXI in 150 ml. abs. MeOH treated with a soln. of 3.66 g. Na in 80 ml. MeOH gives 32 g. *Et threo-2-amino-3-phenyl-3-methoxypropanoate* (XXII). A soln. of 32 g. XXII in 100 cc. abs. Et₂O treated with 8 g. LiAlH₄ in 300 ml. abs. Et₂O gives 25.76 g. *threo-1-phenyl-1-methoxy-2-amino-3-hydroxypropane* (XXIII) as an oil; *N-b-nitrobenzoyl derivative*, m. 179-81°. Treatment of 0.08 g. XXIII with 0.8 ml. 50% aq. HBr followed by 0.03 g. ρ -O₂NC₆H₄COCl gives 0.02 g. "threo-1-phenyl-2-amino-1,3-dihydroxypropane bis-p-nitrobenzoate" (XXIV), m. and mixed m.p. 196-8°. A soln. of 19.39 g. XXIII in 25 ml. abs. pyridine treated with 90 ml. Ac₂O gives 23.88 g. *threo-1-phenyl-1-methoxy-2-acetamido-3-acetoxyp propane* (XXV), m. 122-3°. To a mixt. of 4.2 ml. concd. HNO₃ and 40 ml. concd. H₂SO₄ at -10° is added a soln. of 23.38 g. XXV in 75 ml. CHCl₃ giving 30.59 g. of oil which heated 2 hrs. with 250 ml. 6N HCl, extd. with CHCl₃, the

solvent removed, and the residue treated with 10.1 g. Br₂ gives 17.03 g. *benzoic acid salt of threo-1-phenyl-1-methoxy-2-amino-3-hydroxypropane* (XXVI), m. 94-7° (from abs. alc.). Treating 12.5 g. XXVI with 75 ml. N NaOH gives 6.03 g. of the free base (XXVII), m. 82-4° (from H₂O). Heating 0.52 g. XXVII with 5.2 ml. 51% HBr gives, on addn. of 10N NaOH, a good yield of *threo-1-p-nitrophenyl-2-amino-1,3-dihydroxypropane* (XXVIII), m. and mixed m.p. 141-2°. Heating 2.03 g. XII with 11 ml. 51% HBr and heating the resulting hydrobromite with 60 ml. H₂O gives 1.12 g. of the demethylated base. A soln. of 0.68 g. of this base in 3 ml. abs. alc. treated with 0.49 g. Br₂ gives 0.35 g. of mixed salts. Recryst. of 0.3 g. of this product from 10 ml. abs. alc. gives 0.09 g. of XVI benzoic acid salt, m. 159-61°, and 0.14 g. of *erythro-1-phenyl-2-amino-1,3-dihydroxypropane* (XXIX) benzoic acid salt, m. 206-8°. Heating XXVIII or *erythro-1-p-nitrophenyl-2-amino-1,3-dihydroxypropane* (XXV) with HBr produces no change in configuration. Heating 0.5 g. XXIX.HCl with 5 ml. concd. HCl in a sealed tube at 100° gives 0.37 g. of oil which, dissolved in 1 ml. abs. alc. and treated with 0.37 g. Br₂OH, gives 0.39 g. of XVI benzoic acid salt, m. 162-3°. Heating XVI with HBr produces no change in configuration. A soln. of 1.4 g. *threo-1-phenyl-1-hydroxy-2-acetamido-3-acetoxyp propane* (XXI) in 70 ml. dry Me₂CO treated with 14 g. Ag₂O and 14 ml. MeI gives, when the process is repeated, 0.35 g. XXV, m. 118-20°, b.p. 140-50°. Boiling 4.52 g. XXVII with 7.52 g. ρ -[CH(OBu)₂]CO₂H, in 20 ml. abs. alc. gives, on fractional crystn. from abs. alc. 2.4 g. 1,1'-*threo-1-p-nitrophenyl-1-methoxy-2-amino-3-hydroxypropane dibenzoyl-bis-arylate*, CaH₁₀N₂O₈ (XXXI), m. 194-6° (m.p. -44° (1% soln. in 60% alc.). A soln. of 2.25 g. XXXI

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In 20 ml. H₂O treated with 8 ml. 2*N* NaOH gives 0.78 g. (+)-*threo*-1-*p*-nitrophenyl-1-methoxy-2-amino-3-hydroxypropane (XXXIII), m. 99° (from C₆H₆), [α]_D 68 (1% soln. in *N* HCl). In a similar manner D(-)-*threo*-1-*p*-nitrophenyl-1-methoxy-2-amino-3-hydroxypropane (XXXIV) is prep'd., m. 103-7° (from C₆H₆ and H₂O), [α]_D -74° (1% soln. *N* HCl). Heating 0.40 g. XXXIV with 5 ml. 53.8% HBr for 1 hr. followed by addn. of 10 ml. H₂O and further heating under N gives 0.09 g. D(-)-*threo*-1-*p*-nitrophenyl-2-amino-1,3-dihydroxypropane (XXXV), m. and mixed m.p. 104-5° [α]_D -22° (2% soln., *N* HCl). Heating 0.6 g. XXXII with 8 ml. 50% HBr followed by addn. of 12 ml. H₂O and further heating under N gives 0.07 g. (+)-*threo*-1-*p*-nitrophenyl-2-amino-1,3-dihydroxypropane (XXXVI), m. and mixed m.p. 103-5° (from H₂O), [α]_D 28° (2% soln., *N* HCl). Heating a soln. of 2.12 g. XXXV in 10 ml. abs. dioxane with 1.38 ml. Cl₂COCHCl₂ gives good yield of chloramphenicol, m. and mixed m.p. 151-2°, [α]_D 19° (4.0% soln., alc.).

Henry B. Haste

KRAUT, M.

✓ Now synthesis of chloramphenicol and its stereochemical relationships. J. Kollonitsch, A. Hahn, V. Cibor, and M. Kraft (Forschungsinst. pharm. Ind., Badische). *Experimente 10:* 758-9 (1961) (in German); cf. preceding abstr.. The *threo* form of β -phenylserinol 3-Me ether (I) (*N*-*p*-nitrobenzoyl deriv., m. 170-81°) was obtained by LiAlH₄ reduction of the Et ester of the diastereoisomer of β -phenylserine Me ether (II) with the lower m.p., and by reduction of the phthalyl deriv. of II to 3-phenyl-3-methoxy-2-phthalimidopropionaldehyde, followed by reduction with (iso-PrO)₂Al and dephthalylation with N₂H₄. From the *O,N*-di-Ac deriv. of I was derived β -*p*-nitrophenylserinol 3-Me ether (III), m. 93-4°, which was demethylated to *threo*-1-(*p*-nitrophenyl)-2-amino-1,3-dihydroxypropane (IV). Treatment of III with tartaric acid or dibenzoyltartaric acid produced the optical antipodes. The *L*-isomer of III, m. 105-7°, [α]_D -74° (1% in N HCl), was converted by demethylation to a compd. (V) apparently identical with the hydrolyzate of natural chloramphenicol (VI). Treatment of V with CHCl₃COCCl₄ gave a good yield of VI. The diastereoisomer of II with the higher m.p. was similarly reduced to obtain *erythro*- β -phenylserinol 3-Me ether (VII) (*N*-*p*-nitrobenzoyl deriv., m. 103-4°), which was converted to *erythro*- β -*p*-nitrophenylserinol 3-Me ether, m. 110-11°. Demethylation of VII with aq. HBr resulted primarily in *erythro*- β -phenylserinol (VIII), with some *threo*- β -phenylserinol (IX). It was found that the conversion of

VIII to IX could be effected under the conditions of methylation; however IX, *erythro*- β -*p*-nitrophenylserinol 3-Me ether (*d,p*-nitrophenylserinol (X) remained unchanged under these conditions. *trans*-Clutauyl alc. Me ether was treated in EtOH with Br in the presence of PbO, yielding 1-*p*-nitro-2-bromo-1,3-dimethoxypropane (XI), which was converted to an amide-*cis* to β -phenylserine di-Me ether (XII) (*N*-*p*-nitrobenzoyl deriv., m. 129-30°). The *N*-Ac deriv. (XIII) was identical with the compd. obtained from the *N*-Ac deriv. of *threo*- β -phenylserinol by methylation with MeI and oxalic acid. XIII was nitrated, deacetylated, and deaminated to give X. From the results it is evident that amide formation of 3-phenyl-3-methoxy-2-bromopropionic acid (XIV) and XI gives diastereoisomeric amino derivs. although XI and XIV probably have the same configuration. It is suggested that this apparent contradiction can be explained by the "neighboring group effect." D. S. Farmer

open *open*

KRAUT, M.

3- β -Hydroxy-5-cholenic acid and 5-pregn-3 β -ol-20-one from hydrodeoxycholic acid. L. Varga, M. Radics, and M. Kraut (Research Inst. Pharm. Ind., Budapest). *Acta Chim. Acad. Sci. Hung.* 8, 403-8 (1965) (in German with English summary).—Treatment of the Me ester of ditosylate and diisopropylhydrodeoxycholeic acid with Ac₂O and KOAc (I) yielded the Me ester of 3 β -acetoxy-5-cholenic acid. The Me ester of 3 α ,5 α -ditosyloxypregnen-20-one treated with I yielded the Me ester of 3 β -acetoxy-5-pregnen-20-one. Crude hydrodeoxycholic acid (5 kg.) treated with HCl-MeOH yielded 1850 g. Me ester, m. 118-18°. The Me ester is easily recrystd. from C₆H₆ and on hydrolysis yields pure hydrodeoxycholic acid.

Theodore Rosett

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P.M.

KRAUT, M.

*Chloramphenicol series. II. Synthesis of the derivatives
of 2-chloro-3,2-dihydroxy-3-oxo-4-aminocyclohexanone. I.* Kollar,
Jesch, A. Hines, M. Kraut, and V. Orlitzky. *J. Am. Chem.
Soc.* 72, 2230-2236 (1950).

Six Jang, D., 2230-2236 (in Chinese, English summary);
cf. C.A. 39, 2304-2307 (1955). $\text{CH}_3\text{COCl}(\text{CH}_2)_2\text{OH}$ (II) and
 $\text{CH}_3\text{COCl}(\text{CH}_2)_3\text{OH}$ (III), prep. from Ac_2O and $\text{MgO}-\text{H}_2\text{O}$
with $\beta\text{-O}_2\text{NC}_2\text{H}_5\text{CH}_2\text{OH}$ (IV), were added to Br_2 and K_2CO_3 and I were re-
duced to $\beta\text{-O}_2\text{NC}_2\text{H}_5\text{CH}_2\text{CHCl}_2\text{OH}$ (V) and $\text{CH}_3\text{COCH}_2\text{CHCl}_2\text{OH}$ (VI)
 Br_2 and K_2CO_3 . Preparation of
1.36 g. II with 0.82 ml. dry Br_2 in 20 ml. Et_2O by keeping
it 2 hrs. at room temp. and evap'd. gave 0.12 g. dark crys.
 $\beta\text{-O}_2\text{NC}_2\text{H}_5\text{CH}_2\text{CHBrCl}_2\text{OH}$ (VII); this (1.13 g.) in 6
ml. MeOH and 0.076 g. Na in 6 ml. MeOH were heated 3
hrs. at 100° in a sealed tube and the product taken up in
 Et_2O , washed with H_2O , dried, and evap'd. to give 0.93 g.
oil $\beta\text{-O}_2\text{NC}_2\text{H}_5\text{CH}_2\text{CHBrCl}_2\text{OH}$ (VIII). II (6 g.) dissolved
in 15 ml. abs. pyridine, 0.15 g. CuCl_2 added and reduced
by the soln. kept overnight at room temp. and poured on
ice; and the crystals washed, dried, dissolved in CHCl_3
and EtOAc added gave 12.6 g. $\beta\text{-O}_2\text{NC}_2\text{H}_5\text{CH}_2\text{CHCl}_2\text{OC}_2\text{H}_5$
(V), m.p. 172-9°. V (2.11 g.) and 16.9 ml. 0.53N
 Br in CHCl_3 gave 1.5 g. $\beta\text{-O}_2\text{NC}_2\text{H}_5\text{CH}_2\text{CHBrCl}_2\text{OC}_2\text{H}_5$
(VII), m.p. 183-8° (from CHCl_3 and abs. EtOAc). VI (1 g.)
in 8 ml. dry CHCl_3 mixed with 0.185 g. "Bromo" (1.38
ml. "MeOH") with cooling, the mixt. add. with CO_2 , add.
with CHCl_3 , and filtered, and the efferv. add. from 10 ml. hot
 EtOAc yielded 0.27 g. $\beta\text{-O}_2\text{NC}_2\text{H}_5\text{CH}_2\text{CHBrCl}_2\text{OC}_2\text{H}_5$
(VIII). An attempt to remove I Br by heating VI with
 $\text{MgO}-\text{MeOH}$ in a sealed tube failed. II (12 g.) in 16.8 ml.
 MeOH mixed dropwise with cooling with 3.18 ml. Br and
8.04 g. PhO in 67 ml. MeOH and the mixt. filtered, add.
with H_2S , shaken with Ag_2O , filtered, and evap'd. gave
19.00 g. pale brown, oily $\beta\text{-O}_2\text{NC}_2\text{H}_5\text{CH}_2\text{CH}(\text{OMe})\text{CH}_2\text{Cl}_2\text{OC}_2\text{H}_5$
(VIII); this (102.2 g.) heated with 73 g. $\alpha\text{-C}_6\text{H}_5(\text{CO})_2\text{NEt}_3$
(VIIIa) at 160° (until it became red and evap'd. with hot H_2O)

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gave 45 g. ρ -O₂NCH₂CH(OMe)C(OH)CH₂NCO-C₆H₅ (IX). ClCPb₃ and IX failed to react. VII (13.55 g.) in 26 ml. abs. pyridine added to 13.5 g. ClCPb₃, and the mixt. poured after 12 hrs. into ice H₂O gave 8.3 g. ρ -O₂NCH₂CH(OMe)CHBrCH₂OCPh₃ (X), m. 188-40° (from EtOH). X did not react with VIIIa. Heating X with CuCN 1 hr. at 100-100° then 4 hrs. at 100-240° did not give a nitrile. X (1.1 g.) heated with 80 ml. 8% NH₃-EtOH and 0.03 g. KI in a sealed tube 36 hrs. at 170° and the dark residue evapd. and cryst. from EtOH gave ρ -C₆N₃(O₂NC₆H₄CH₂OCPh₃)₂ (XI), m. 163-8°; the amide structure was identified by bromination. An attempt to cleave Br from X by heating with alc. NH₃-Cu or with liquid NH₃-Cu in a sealed tube failed. IX (32.5 g.) in 320 ml. hot abs. EtOH heated 2 hrs. with 20 g. N₂H₄·H₂O in 230 ml. abs. EtOH on a steam bath, the pptd. phenylhydrazone (14 g.) filtered off, the filtrate evapd., and the residue dried *in vacuo*, extd. with *N* HCl, the ext. shaken with CHCl₃, then made alk. with NaOH, again extd. with CHCl₃, and evapd. and the residue dried gave 16.5 g. pale pink, cryst. ρ -O₂NCH₂CH(OMe)CH(OH)CH₂NH₂ (XII), m. 116-17°; *N*-Ac deriv., m. 167-70° (from H₂O). XII on oxidation with HIO₄ gave ρ -O₂NCH₂CH(OMe)CH₂CO₂H, oil, turning red on exposure to air; β -nitrophenylhydrazone, m. 168-70°. XII (0.35 g.) heated 30 min. with 2.5 ml. CHCl₃CO₂Mg on a steam bath, the soln. evapd. *in vacuo*, and the residue cryst. from petr. ether gave 0.46 g. ρ -O₂NCH₂CH(OMe)CH₂CO₂Et, m. 111-12° (from *N*-Ac XII). XII (2 g.) refluxed 1 hr. with 10 ml. 56% HBr, the mixt. evapd. *in vacuo*, the residue heated 1 hr. in an N₂ atm., extd. with CHCl₃, ρ -I AcOEt, made alk. with NaOH, and evapd.

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shaken with ρ -O₂NCH₂COCl (VIa) in 169 ml. Et₂O with ice cooling, gave 1.47 g. ρ -O₂NCH₂CH(OH)CH₂(OH)CH₂NCOC₂H₅NO₂ (XII), m. 163-6° (from abs. EtOH). Prod. 211 g. (3.5 g.) and 0.27 g. (110 mg.) 4-est. H₂O shaking 2 days at room temp. gave cryst. 0.04 g. ρ -O₂NCH₂CH₂CHO, m. 163-7°; 0.19 g. ρ -O₂NCH₂CONHCH₂CHO, m. 135-7°, was extd. from the mother liquors with Ac₂OEt. Thus 4- ρ -Nitrophenyl-2-(ρ -nitrobenzamido)-1,3-dioxolanopropane was not cleaved by HgO. The abs. mother liquors from XII extd. with Ac₂OEt and the ext. dried in vacuo, gave 1.6 g. ρ -O₂NCH₂CH(OH)CH₂NO₂ (XIV), which (1 g.) heated 2 hrs. with 2 ml. CH₂Cl₂/Me on a water bath, 20 ml. ref. Et₂O added, the mixt. co. d. to 5 ml. *in vacuo*, gave ρ -O₂NCH₂CH₂CH₂CH₂CONHC₂H₅, m. 103-4° (VIII) (3.8 g.) in 10 ml. abs. pyridine kept 13 hrs. with 3.6 g. Zn²⁺ in 5 ml. CHCl₃, the mixt. evapd. *in vacuo*, and the residue washed several times with ice H₂O gave 0.15 g. ρ -O₂NCH₂CH(OMe)CH₂CH₂NCOC₂H₅NO₂ (XV), m. 121-3° (from EtOH). XV (5.59 g.) heated 100 min. at 170° with 2.6 g. VIIIa, the mixt. cooled, washed free of Br, dried, and extd. with hot Et₂O gave 3.16 g. ρ -O₂NCH₂CH(OMe)C₂H₅CO₂H₅NO₂ - ρ -CH₂NCOC₂H₅ + o (XVI); m. 135-6°. XVI (1 g.), 8 ml. AcOH, and 10 ml. 6N HCl refluxed 3 hrs. at 120°, the soln. evapd. at 80° *in vacuo*, 10 ml. H₂O added to the residue, the mixt. filtered, the filtrate evapd. twice with CHCl₃, made alk. and again extd. and the br. ext. with CHCl₃ evapd. gave 0.04 g. XII. Yellow PbO (2.4 g.) in 20 ml. MeOH, 1.04 ml. Br, and 3.54 g. I gave oily ρ -O₂NCH₂CH(OH)CH₂NO₂ (XVII), which crystd. after a few weeks to ρ -O₂NCH₂CH₂CH₂CH₂CHO, m. 130-5°; this with VIIIa gave a black viscous material. Similarly 3.6 g. PbO in 250 ml. MeOH, 17.3 ml. Br, and 40 g. Ia gave

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XVII (20.1 g.), ^a in abs. pyridine, and 50 ml. CHCl_3 mixed with 17.1 g. XIIa with ice cooling, the mixt. kept overnight at room temp., the CHCl_3 evap'd., the residue treated with ice H_2O_2 , and the crystals washed with EtOH and recrystd. from abs. EtOH gave 21.2 g. $\text{PhCH}(\text{OMe})-\text{CHBrCH}_2\text{OCOC}_2\text{H}_5\text{NO}_2\text{-}p$ (XVIII), m. 100°. XVIII (20 g.) and 7.4 g. VIII stirred at 17° and the mixt. ext'd. with H_2O and crystd. from abs. EtOH gave 7.6 g. $\text{PhCH}(\text{OMe})-\text{CH}_2\text{OCOC}_2\text{H}_5\text{NO}_2\text{-}p\text{CH}_2\text{N}(\text{CO})\text{CH}_2$ (XIX), m. 104-5°. XIX (0.1 g.) refluxed with 25 ml. abs. EtOH and 20 ml. $N\text{NaOH}$, the EtOH evap'd., and the residue worked up yielded 3.43 g. $\text{PhCH}(\text{OMe})\text{CH}(\text{OH})\text{CH}_2\text{OCOC}_2\text{H}_5\text{NO}_2\text{-}p$ (from $\text{CH}_2\text{N}(\text{CO})\text{CH}_2$) (XX) (4.4 g.) dropped into 0.7 g. IIa, 0.1 g. cryst. EtSO_4H , and 10 ml. abs. Et_2O at 10-15°, the mixt. refrigerated overnight and evap'd. *in vacuo*, and the residue dried to const. wt. and dist'd. at 110°/1 mm. gave 5 g. $\text{PhCCl}_2\text{CHCH}_2\text{OH}$. XVII (20 g.) in 60 ml. abs. pyridine treated with 28 g. CICP_4 gave 22.04 g. $\text{PhCH}(\text{OMe})\text{CH}_2\text{CH}_2\text{OCP}_4$ (XX), m. 110-12° (from EtOH). XX (1 g.) heated with 15 ml. NH_3 in a sealed tube at 80° failed to remove Br, but heating 5 g. XX, 2 g. KOH, and 50 ml. abs. EtOH 7 hrs. at 160°, evap'd. the mixt., and ext'd. the mixt. with H_2O gave $\text{PhCOMe}\text{CHCH}_2\text{OCP}_4$, m. 139-42° (from EtOH); further heating with $\text{NH}_3\text{-Na}$ at 120° in a sealed tube failed to split out MgO . $\text{PhCH}(\text{OMe})\text{CHCH}_2\text{OH}$ (17.5 g.) (from IIa and PhO-ladine) in 26 ml. abs. pyridine let stand overnight with 17.4 g. CICP_4 , the mixt. treated with ice H_2O_2 , and the product (33.2 g.) recrystd. from EtOH gave 16.5 g. $\text{PhCH}(\text{OMe})\text{CHCH}_2\text{OCP}_4$, m. 141-5°; heating this with 10% $\text{NH}_3\text{-EtOH}$ in a sealed tube failed to remove the iodine. J. Ev. M.

MRB/T, M.

HUNGARY / Organic Chemistry. Synthetic Organic Chemistry. G
Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60970.

Author : Miklos Kraut, Lajos Toldy, Andre Kasztreiner,
Oszhar Fuchs, Laszlo Vargha.

Inst : -

Title : Study in Region of Antihistamine Preparations.
I. Preparation of Substituted Amines and Their
Reduction with LiAlH₄.

Orig Pub: Magyar kem. folyoirat, 1957, 63, No 1, 1-5.

Abstract: With a view to study the physiological activity,
 $RR'NCH_2CON(CH_3)_2$ -s, in which R' = α -pyridyl,
R = C₆H₅CH₂ (I), R = n-CH₃OC₆H₄CH₂ (II), R = n-

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HUNGARY / Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60970.

Abstract: $\text{ClC}_6\text{H}_4\text{CH}_2$ (III), were prepared by the condensation of corresponding $\text{RR}'\text{NH}$, in which $\text{R}' = \alpha\text{-pyridyl}$, $\text{R} = \text{C}_6\text{H}_5\text{CH}_2$ (IV), $\text{R} = \text{n-CH}_3\text{OC}_6\text{H}_4\text{CH}_2$ (V), and $\text{R} = \text{n-ClC}_6\text{H}_4\text{CH}_2$ (VI), with N-dimethylamide of chloroacetic acid (VII). Dimethylamide of 2-phenyl-2-(α -pyridyl)-propionic acid (IX) was prepared by the condensation of 2-benzylpyridine (VIII) with VII in the presence of NaNH_2 . The preparation of 1-phenyl-1-(α -pyridyl)-3-dimethylaminopropanone-2 (XI) by the condensation of 2-Br $\text{C}_5\text{H}_4\text{N}$ with $\text{C}_6\text{H}_5\text{CH}_2\text{COCH}_2\text{N}(\text{CH}_3)_2$ (X) did not succeed. I, II, III and IX were reduced with LiAlH_4 to $\text{R}'\text{RCHCH}_2\text{CH}_2\text{N}(\text{CH}_3)_2$, where $\text{R}' = \alpha\text{-pyridyl}$, $\text{R} = \text{C}_6\text{H}_5\text{CH}_2$ (XII), $\text{R} = \text{n-CH}_3\text{OC}_6\text{H}_4\text{CH}_2$ (XIII), $\text{R} =$

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HUNGARY / Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60970.

Abstract: $= \text{n-ClC}_6\text{H}_4\text{CH}_2$ (XIV), and $\text{R} = \text{C}_6\text{H}_5$ (XV). 0.4 mole of IV in 1080 ml of absolute toluene is added to 0.85 mole of 7%ual NaNH_2 in 136 ml of absolute toluene in the duration of 2 hours, after that 0.8 mole of VII is added and, after aging (4 hours, 35°), the mixture is filtered and the residue is triturated with 60 ml of absolute alcohol, I is obtained, yield 22.2% melting point 99 to 101° (from absolute alcohol). II and III are prepared similarly of V and VI correspondingly (the amounts of NaNH_2 in moles, the amounts of toluene in ml, the amounts of V or VI in moles, the amounts of toluene in ml, the amounts of VII in moles, the

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HUNGARY. /: Organic Chemistry. Synthetic Organic Chemistry. .G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60970.

Abstract: aging duration in minutes at the temperature in °C, the yield in % and the melting points in °C are enumerated in the following): 0.185, 30, 9.085, 420, 0.17, 60, 35, 12.4, 119 to 120 (from acetone); 0.093, 11, 0.034, 160, 0.68, 70, 35, 25.2, 158 (from absolute alcohol). 0.206 mole of IV is added to 0.27 mole of 77%-ual NaNH₂ in 65 ml of absolute toluene at 60°, the mixture is kept 2 hours at 100° until the separation of NH₃ discontinues, then 0.288 mole of VII is added at 70°, and 5 hours later (at 100 to 150°) 60 ml of water is added for the elimination of IV (1 g). The mixture is washed with 5 n. HCl and acid extracts are extracted with ether for the separation of IV (20 g). The residue is alkalized, the resin is separated with 50 ml of CHCl₃, and 15 g of NaOH is added too; 7 g

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Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60970.

Abstract: of Na salt of N-benzyl-N-(2-pyridyl)-glycine precipitates, melting point 296° (from alcohol). 0.242 mole of VIII is added to NaNH₂ in liquid NH₃, 2 hours later 0.3 mole of VII in 200 ml of absolute ether is added, 1 hour after it 200 ml of water is added and IX is extracted with ether, yield 43%, boiling point 180 to 185°/0.5 mm, melting point 95 to 96° (ether + petroleum ether). XII, XIII, XIV and XV were prepared reducing I, II, III and IX correspondingly with LiAlH₄ (the duration of boiling, the yield in % and the boiling points in °C are enumerated in the following): 24, 50, 185 to 195/1.7 mm, hydrochloride, melting

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HUNGARY / Organic Chemistry. Synthetic Organic Chemistry. G

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Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60970.

Abstract: point 187 to 188°; 20, 50, 185 to 190/2 mm, picrate, melting point 165 to 167° (dissociates); 5, 70, 154 to 155/0.2 mm, hydrochloride, melting point 172 to 174°; 20, 63.5, 142 to 145/3 to 4 mm, oxalate, melting point 151 to 152°. 0.385 mole of benzyl-cyanide and 0.385 mole of ethyl ester of VII are added to sodium alcoholate (8.85 g of Na and 110 ml of absolute alcohol) and after 3 hours of boiling, 400 ml of water is added first, and after that, 40 ml of glacial CH₃COOH is added; C₆H₅CH(CN)COCH₂N(CH₃)₂ (XVI) is obtained, yield 72%, melting point 237 to 238° (dissociates, from alcohol). 33.15 g of X is obtained by the action of 28 ml of concentrated H₂SO₄ and 50 ml of water on 50 g of XVI (2.5 hours at 120 to 127°) with a following addition of 90 ml of 50%-ual KOH, yield

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HUNGARY/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4719.

Author : Toldy, L. and Kraut, M.

Inst :

Title : Research in the Field of Antihistamine Preparations.
II. A Novel Simple Synthesis of Ethylenediamine
Derivatives.

Orig Pub: Magyar Kem Folyoirat, 63, No 1, 23-27 (1957) (in
Hungarian with a German Summary)

Abstract: A new synthesis of N-(p-chlorobenzyl)-N-2-
(pyridyl)-N', N'-dimethylethylenediamine (I)
the hydrochloride of which has proven antihista-
mine action ('Synopen') is described. The starting
material used was 2-(β -dimethylamino-ethyl)-
aminopyridine (II), obtained by a modification of

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4719.

a previously described method (see C. P. Hutterer and C. Djernassi, J Amer Chem Soc, 68, 1999 (1946)). A suspension of 102.5 gms 77% NaNH₂ in 150 ml pyridine is treated (45-50°, 30 min) with a solution of 188 gms 2-aminopyridine in 550 ml pyridine and heated to 100° for 90 min. By dissolving 144 gms of the hydrochloride of β -dimethylaminocethyl chloride at 0° in a mixture of 250 ml 5N NaOH + 250 ml toluene, the free base is obtained [sic] which is added to a solution of 2-aminopyridine; after heating (24 hrs), 105° and removal of the solvent by distillation, the residue is treated with 300 ml ice water and extracted with toluene; distillation of the extract at 130-141° gives 124 gms II, yield 75% as against 50% (see reference cited). A solution

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4719.

of 89 gms II in 400 ml pyridine is treated with 94.42 gms p-chlorobenzoyl chloride (dropwise addition, cooling), the solution is stirred for 1 hr, and the residue is treated with alkali; N-(p-chlorobenzoyl)-N-(2-pyridyl)-N',N'-dimethylethylenediamine (III) is obtained, yield 60%, mp 106-107° (from alcohol). A solution of 98.18 gms III in 340 ml pyridine and 77 gms P₂S₅- are refluxed (oil bath) [Elme?], made alkaline with 5N NaOH, and extracted with C₆H₆; the N-p-chlorothiobenzoyl derivative (IV) is obtained, yield 60%, mp 85° (from alcohol). A solution of 10 gms IV in 330 ml acetone is added dropwise to 120 gms of deactivated Raney Ni (V), the mixture is refluxed for 5 hrs, and the filtrate is distilled, giving I, yield 60%, bp 154-155°, hydrochloride mp 172-174°. The

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4719.

action of active V on IV leads to the destructive hydrogenation of the molecule with the formation of II. The authors point to the possibility of utilizing the method described above in the synthesis of compounds of the type of the pyribenzamines. In addition to III and IV, other amides of the acid sic have also been prepared. A solution of 135 gms II in 815 ml pyridine is treated at 0° with 155.4 gms of freshly distilled p-nitrobenzoylchloride; on alkalization the hydrochloride (mp 199°) which is formed (after 48 hrs gives 190 gms N-(p-nitrobenzoyl)-N-(2-pyridyl)-N', N'-dimethylethylenediamine (VI), mp 124° (from alc). 121 gms of VI in 500 ml alcohol are hydrogenated at 20° and at atmospheric pressure in the presence of V; recrystallization of the oily

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Abs Jour: Ref Zhur-Khim., № 2, 1959, 4719.

product from 210 ml water gives 94.88 gms of the aminobenzoyl derivative (VII), mp 94-95°. 25.2 gms PtS₅ in 110 ml pyridine are refluxed for 0.5 hr, after which a solution of 30.5 gms VII in 100 ml pyridine is added dropwise over 15 min; the mixture is refluxed for 45 min and allowed to stand for 12 hrs, at the end of which it is poured over ice, 700 ml of CHCl₃ + 280 ml 5N NaOH is added, and the CHCl₃ layer is filtered; the filtrate from the last operation is washed three times with 670 ml cold 5N NaOH and three times with 670 ml portions of cold 5N HCl; the HCl extract is alkalized, the oil which separates is extracted with C₆H₆, and the solvent is distilled off; recrystallization of the residue from alcohol gives 7.44 gms N-

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HUNGARY/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4719.

(p-aminothiobenzoyl)-N-(2-pyridyl)-N',N'-dimethyl ethylenediamine (VIII), mp 170-172°. VI-VIII were found to have very weak antihistamine action. For Communication I see RZhKhim, 1958, 60970. --
S. Rozenfeld.

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HUNGARY / Organic Chemistry. Synthesis.

G

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23402

Author : I: Kraut, M.; Toldy, L.; Kasztreiner, E.; Fuchs, O.;
Vargha, L.

II. Toldy, L.; Kraut, M.; Vargha, L.

Inst : Academy of Sciences, Hungary

Title : Investigations in the Field of Antihistamines.
I. Preparation of Substituted Acid Amides and
Their Reduction by Lithium Aluminium Hydride.
II. Simple New Synthesis of Ethylenediamine De-
rivatives.

Orig Pub: Acta chim. Acad. scient. hung., 1958, 15, No 1,
19-25; No 3, 265-271.

Abstract: See RZhKhim, 1958, 60970; 1959, 4719.

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KKRUS miles

PAGE 1 BOOK INFORMATION 807/952

Akademija nauk SSSR, Institut fizicheskoj kemi

Problemy Kataliza i kataliz. [v. 10]: Problemy fizicheskogo kataliza

(Problemy fizicheskikh i khimicheskikh reakcij). Moscow, Izd-vo Akad. Nauk, 1960. 464 p.,

olsj. Izdaniye, 2,600 copies printed.

Bart, B.I. [Boris Iosifovich Bart]. Corresponding Member of the Academy of Sciences USSR,
and O.V. Krylov, Candidate of Chemistry. In: *Problemy fizicheskogo kataliza*

Rezhutov, V.N. [Vladimir Nikolayevich Rezhutov]

REPORT: This collection of articles is addressed to physicists and chemists
and to the community of scientists in general interested in recent
research on the physics and physical chemistry of catalysis.

CONTENTS: The articles in this collection were read at the conference on the
Physics and Physical Chemistry of Catalysts organized by the USSR Academy of Sciences
and the USSR (Soviet) Chemical Society, Academy of Sciences USSR), held by
the Academic Council on the problem of "The scientific bases for the selection
of catalysts." The Conference was held at the Institute of Physics, Academy of Sciences
of the Ukrainian SSR (Institute of Physics Chemistry of the AS UkrSSR) in Kiev, March 20-23, 1960.
Of the great volume of material presented at the conference, only papers not
published elsewhere were included in this collection.

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- Fritz, J.S. Types of Active Complexes and Their Role in Heterogeneous
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- Hilfiker, J.A. [Hilfiker, Julian] Influence of Temperature on the
Institutes of Transportation Industry Some Problems of Organic Catalysis 230
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- Kostylev, M.M. [Institute of Physicsof Chemistry and Structure of the Surface of Alkaline
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Cooling equipment of a river motor boat. Prin pat. vyn.
16 no.1:29-31 Ja '65.

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1. Ceskomoravska-Kolben-Danek, n.p., Chocen.

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"Increasing Output of Core Samples in Soviet-type Rotary Boring." p. 142 "Soviet Criticism of Our Ore Mines; An Interview With Comrade Golubar, Director of An Ore Mine in Krivio Rog." p. 144 (RUDY, Vol. 1, No. 9, Nov. 1953) Praha, Czechoslovakia

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Czechoslovak geologists began working in the Mongolian People's Republic. Geol pruzkum 5 no.10:318 0 '63.

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Failure to the attempt to make Germany another Korea. Vsem.prof.dvizh.
no.14:17-22 J1 '53. (MLRA 6:7)

1. Profsoyuz metallistov (Ob'yedineniye svobodnykh profsoyuzov).
(Germany, Eastern--Government, Resistance to) (Government, Resistance
to--Germany, Eastern)

~~KRAUTER, Paul [Krauter, Paul]~~

Name that sounds like war: Krupp. Vsem. prof. dvizh. no.5:11-14
My '58. (MIRA 11:5)

1. Sekretar' Mezhdunarodnogo ob'yedineniya profsoyuza trudyashchikgsya
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Wrocaw, Poland).

SV: Monthly List of East European Accomplishments, EEA), LC, Vol. 4, No. 5,
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KRAUTFORST, Wieslaw; and KOZLOWSKI, Marian, Chair of Special Animal Breeding Institute of Domestic Animal Breeding Department of Zootechnology of Agricultural College in Olsztyn (Katedra Szczegolowej Hodowli Zwierząt, Zakład Hodowli Trzody Chlewnej - Wydział Zootechniki WSR) Head (Kierownik) Docent Pharmacist Wieslaw KRAUTFORST, Olsztyn

"The Influence of Fodder Oxytetracycline on Growth of Piglets Retarded in Their Development (Cachechic)"

Lublin, Medycyna Weterynaryjna, Vol 22, No 10, Oct 66; p. 616-618

Abstract [English summary modified]: Oxytetracycline 200 gm added to 1000 kg feed concentrate increased growth of underdeveloped piglets (below 12 kg at 8 weeks of age). Feed utilization was also improved. It did not decrease mortality, presumably due to advanced cachexia in some of the piglets. Table, graph, 1 Polish, 5 Western references.

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"The Farm Building and the Directions of the World", P. 18. (EUROPEAN TWO
WIEJSKIE, Vol. 6, No. 3, May/June 1951, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

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KRAUTFORST, Wieslaw; and KOZLOWSKI, Marian, Chair of Special Animal Breeding Institute of Domestic Animal Breeding Department of Zootechnology of Agricultural College in Olsztyn (Katedra Szczegolowej Hodowli Zwierząt, Zakład Hodowli Trzody Chlewnej - Wydział Zootechniki WSR) Head (Kierownik) Docent Pharmacist Wieslaw KRAUTFORST, Olsztyn

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KRAUTH, P.; SOMAI, J.

Mechanization of leather industry in the Soviet Union p.148

BOR-ES CITOTECHNIKA (Borigpari Tudomanyos Egyesulet mint a Magyar Tudomanyos Egyesuletek Szovetszeg Tagegyesulete) Budapest, Hungary
Vol. 9, no.5, Oct. 1959

Monthly List of East European Accessions (EAA) I.C., Vol.8, no.12, Dec. 1959
Uncl.

KRAUTH, Pal; HEGEDUS, Lorant

Side leather finishing practice in Hungary. Bor cipo 13
no.1:13-16 Ja '63.

1. Boripari Igazgatosag (for Krauth). 2. Simontornyai Borgyar
(for Hegedus).

KRAUTH, Pal, fomernok; VARGA, Pal, fomernok

The leather and shoe industry in the third five-year-plan.
Musz elet 20 no.1:6 14 Ja '65.

1. Department of Industry Development of the Ministry of
Light Industry, Budapest.

ACC NR: AP6036896 /N/ SOURCE CODE: UR/0226/66/000/011/0035/0038

AUTHOR: Fedorchenko, I. M.; Denisenko, E. T.; Krautman, V. R.

ORG: Institute for Problems in Science of Materials AN UkrSSR (Institut problem materialovedeniya AN UkrSSR); Leningrad Coke and Gas Plant (Leningradskiy kaksogazovyy zavod)

TITLE: Comparative investigations of properties of nickel-graphite-material from powders of electrolytic and carbonyl nickel

SOURCE: Poroshkovaya metallurgiya, no. 11, 1966, 35-38

TOPIC TAGS: nickel graphite material, metal powder, electrolytic nickel, nickel powder

ABSTRACT: The replacement of electrolytic nickel powder by a carbonyl leads to an improvement of the strength properties and chemical stability of nickel-graphite materials. The degree of dispersion and the graphite-ash content do not appreciably affect the strength properties. Orig. art. has: 4 figures and 3 tables.
[Based on authors' abstract] [NT]

SUB CODE: 11/SUBM DATE: 18Feb66/ORIG REF: 002/

Card 1/1

ACCESSION NR: AP4028435

S/0181/64/006/004/1089/1095

AUTHORS: Vitman, F. F.; Krautman, V. R.; Pukh, V. P.

TITLE: The strength of sheet glass and the scale factor

SOURCE: Fizika tverdogo tela, v. 6, no. 4, 1964, 1089-1095

TOPIC TAGS: sheet glass, crushing strength, scale factor, glass hardening, tester
UM 5

TOPIC TAGS: Strength was measured by a UM-5 apparatus on samples 40 x 40 x 2.2 mm, by a weight-applying device for smaller sizes, and by a pneumatic machine for larger sizes. The duration of loading (till breakage) was the same for all samples (10-30 sec). The authors have shown that the strength of sheet glass hardened by etching in solutions of fluoric acid and also the strength of untreated glass depend markedly on the dimensions of the working (uniformly loaded) surface of the sample. When this surface is increased by a factor of 100 000, the strength is decreased several times. The authors investigate the statistical nature of this effect and show that it may be less noticeable, or even entirely absent, if the glass surface has an accumulation of defects strongly affecting the general dimensions of the

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ACCESSION NR: AP4028435

statistical function of defect distribution on the glass surface. The breaking of glassware most frequently occurs because of very local overstresses (blows). The local character of applying load is equivalent to a sharp limitation of any equally loaded operating surface on the glass. Hardened glass, in contrast to glass with numerous surface defects, reacts to blows as if the possible appearance of the scale factor were restricted. Consequently, whatever the dimensions of a piece of sheet glass in glassware, it should manifest, when struck, greater strength than when the same stresses act on the entire surface. This is one of the advantages of hardened glass; here the scale factor has a positive value. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad
(Physicotechnical Institute, AN SSSR)

SUBMITTED: 22Oct63

DATE ACQ: 27Apr64

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OTHER: 005

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KRAUTWINKL, F.

Explosion of a high-pressure tank. p. 447

TECHNICKA PRACE (Slovenske nakladatelstvo technickej literatury)
Vol. 8, No. 10, Oct. 1956

Pratislava, Czechoslovakia

SOURCE: East European List (EEL) Library of
Congress, Vol. 6, No. 1, January 1957

KRAUTMANN, F.

"How to use low-grade coal in smaller boiler furnaces?"

p. 156 (Energetika, Vol. 8, no. 4, Apr. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 9,
September 1958

KRAUTMAN, F.

"Recirculation of flue gases in steam generators."

Energetika. Praha, Czechoslovakia. Vol. 8, no. 12, Dec. 1958.

Monthly list of East European Accessions (EEA), LC, Vol. 8, No. 6, Jun 59, Unclass

KRAUTMANN, F.

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ENERGETIKA, Praha, Czechoslovakia, Vol. 9, no. 3, March 1959

Monthly List of East European Accessions Index (EEAI), Library of Congress,
Vol. 8, no. 8, August 1959

Unclassified

KRAUTMANN, Frantisek, ins.

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Energetika Cs 11 no.8;389-392 Ag '61.

KRAUTMANN, Frantisek, inz.

Troubles in a flue steam boiler. Energetika Cz 11 no.9:446
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Bayonet joints of pressure vessels. Energetika Cz 12 no.8:416-
417 Ag '62.

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369 Jl '63.

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Assembly of heavy-duty high-pressure boilers. Energetika Cz 14 no. 3: 131-134 Mr '64.

1. Institute of Technical Control, Nitra.

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Chemism of iron deposits in the central eastern part of the massif Poiana Rusca. II. Studii cerc geol 7 no.2:369-379 '62.

1. Comunicare prezentata de M. Savul, membru corespondent al Academiei R.P.R. si membru al Comitetului de redactie, "Studii si cercetari de geologie".

PAVELESCU, L.; MAIER, O.; KRAUTNER, H.; MURUSAN, M.; KRAUTNER, Fl.

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1. Comunicare prezentata de M. Savul, membru corespondent al Academiei
R.P.R. si membru al Comitetului de redactie, "Studii si cercetari de
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Studii cerc geol 7 no.3/4:609-632 '62.

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Studii cerc geol 7 no.3/4:633-645 '62.

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[publ. '64].

1. Submitted April 17, 1959.

KRUTNER, H.

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1. Geological Institute of the Geological Committee.